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SAS/AC:kam 03/17/04 262820
PATENT

Attorney Reference Number 4239-58378
Application Number 09/807,148

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Tosato *et al.*
Application No. 09/807,148
Filed: April 5, 2001
Confirmation No. 2215
For: USE OF CALRETICULIN AND CALRETICULIN FRAGMENTS TO INHIBIT ENDOTHELIAL CELL GROWTH AND ANGIOGENESIS, AND SUPPRESS TUMOR GROWTH
Examiner: Misook Yu, Ph.D.
Art Unit: 1642
Attorney Reference No. 4239-58378

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: MAIL STOP NON-FEE AMENDMENT, COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450 on the date shown below.

Agent for Applicant(s)

Date Mailed March 18, 2004

MAIL STOP NON-FEE AMENDMENT
COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

TERMINAL DISCLAIMER

The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services, The National Institutes of Health, ("THE GOVERNMENT") is the owner of the entire interest in the above-identified application. An assignment was submitted to the United States Patent and Trademark Office on March 17, 2004. A copy of this assignment is attached hereto.

THE GOVERNMENT hereby disclaims the terminal part of any patent granted on the above-identified application, which would extend beyond the expiration date of the full statutory term of United States Patent No. 6,596,690, and hereby agrees that any patent so granted on the above-identified application shall be enforceable only for and during such period that the legal title to said patent shall be the same as the legal title to United States Patent No. 6,596,690, this agreement to run with any patent granted on the above-identified application and to be binding upon the grantor, its successors or assigns.

THE GOVERNMENT does not disclaim any terminal part of any patent granted on the above-identified application prior to the expiration date of the full statutory term of United States Patent No. 6,596,690, in the event that it later expires for failure to pay a maintenance fee, is held unenforceable, is found invalid, is statutorily disclaimed in whole or terminally disclaimed under 37 C.F.R. § 1.321(a), has all claims cancelled by a reexamination certificate, or is otherwise terminated prior to expiration of its statutory term, except for the separation of legal title stated above.

I am empowered to act on behalf of THE GOVERNMENT.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were

08/04/2004 GDUCKETT 00000004 024550 09807148
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PAGE 17/34 * RCVD AT 7/29/2004 3:22:09 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/26 * DNIS:2730839 * CSID:228 9446 * DURATION (mm-ss):12-06

SAS/AC:kam 03/17/04 262820
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made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

THE GOVERNMENT

03/18/04
Date

Name: Mojdeh Bahar 54,798
Title: Technology Licensing Specialist

WDN/SAS:gtc 4239-55414 E-230-00/0 07/19/01

ASSIGNMENT

WHEREAS, We, Giovanna Tosato, of 9007 Burning Tree Road, Bethesda, Maryland, 20817, a citizen of the United States of America, and Sandra E. Pike, of 5801 Edson Lane #102, North Bethesda, Maryland, 20852, a citizen of the United States of America, employees of the Department of Health and Human Services at the time the invention was made, are co-inventors of USE OF CALRETICULIN AND CALRETICULIN FRAGMENTS TO INHIBIT ENDOTHELIAL CELL GROWTH AND ANGIOGENESIS, AND SUPPRESS TUMOR GROWTH for which the following patent applications have been filed:

☒ U.S. Provisional Application No. 60/103,438, filed October 6, 1998;
☒ PCT Application No. US99/23240, filed October 5, 1999;
☒ U.S. Patent Application No. 09/807,148, filed April 5, 2001; and

We are also co-inventors of VASOSTATIN AS MARROW PROTECTANT, for which the following patent application has been filed:

☒ U.S. Patent Application No. 09/828,000, filed April 6, 2001; and

All four (4) of these patent applications are collectively referred to herein as "the patent applications" or "applications for Letters Patent"; and

WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the United States of America under Paragraph 1(a) of Executive order 10096, to the entire right, title, and interest herein, both domestic and foreign; and

WHEREAS, the Government of the United States of America is desirous of acquiring all domestic and foreign right, title, and interest in the aforesaid invention described in the aforesaid applications for Letters Patent of the United States of America; and

NOW, THEREFORE, to all whom it may concern, be it known for and in consideration of the premises and other valuable considerations, We the undersigned, have sold, assigned, and transferred and by these presents do sell, assign, and transfer unto The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services (hereinafter THE GOVERNMENT), and their successors, the full and exclusive right, title, and interest in the invention, patent applications and patent rights throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file the invention described in the aforesaid applications for Letters Patent of the United States of America, and all Letters Patents and Registrations which may be granted on the same in the United States of America and all countries throughout the world, and to claim the priority from the applications as provided by United States Law and the Paris Convention, or of any divisional, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

AND, We hereby authorize and request the Commissioner for Patents to issue said Letters Patent to THE GOVERNMENT as an assignee of the entire right, title, and interest in and to the same throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file, for the sole use for the full term or terms for which said Letters Patent and Registrations may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof which may be granted as fully and entirely as the same would have been held by us, had this assignment not been made;

WDN/SAS:gtz 4239-55414 E-230-00/0 07/19/01

AND, We hereby warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied with respect to the aforesaid applications for Letters Patent which will impair, diminish, limit, or abridge the interest herein conveyed at the time of the execution of this instrument by us;

AND, We hereby agree to execute any and all applications for Letters Patent in the United States of America and foreign countries, and to furnish and deliver to the Secretary, Department of Health and Human Services, upon request, all data and documents, and to execute any papers which may be necessary for the prosecution of any application or applications of Letters Patent or for THE GOVERNMENT to exercise its rights granted hereunder, including communicating to THE GOVERNMENT, its representatives or agents, any facts relating to said invention, including evidence for interference purposes, or for other proceedings, whenever requested, to testify in any interference or other proceedings, whenever requested, and to execute and deliver on request all lawful papers required to make any of the foregoing provisions effective, and likewise make these provisions binding upon our heirs, legal representatives, administrators and assigns, and We shall assist THE GOVERNMENT in every way as may be requested in protecting said invention, provided that any expense of extending such assistance shall be paid by THE GOVERNMENT.

We hereby grant the law firm of Klarquist Sparkman Campbell Leigh & Whinston, LLP, the power to insert on this Assignment any further information which may be necessary or desirable in order to comply with all applicable legal requirements, including the rules of the United States Patent and Trademark Office for submitting and recording this document.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 7/25/01

Giovanna Tosato

STATE OF Mississippi)
) ss.
COUNTY OF Montgomery)

This 25 day of July, 2001, before me personally came the above-named Giovanna Tosato, who executed the foregoing Assignment in my presence, and who acknowledged to me that she executed the same of her own free will for the purposes set forth therein.

Margaret L. Tomczak
Notary Public for
My commission expires:

MY COMMISSION EXPIRES
MARCH 1, 2003
MARGARET L. TOMCZAK
NOTARY PUBLIC

[SEAL]

PAGE 20/34 * RCVD AT 7/29/2004 3:22:09 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/26 * DNIS:2730839 * CSID:228 9446 * DURATION (mm-ss):12-06

WDN/SAS:gte 4239-55414 E-230-00/0 07/19/01

Dated: 7/26/01

Sandra E. Pike
Sandra E. Pike

STATE OF Maryland)
) ss.
COUNTY OF Montgomery)

This 26 day of July, 2001, before me personally came the above-named Sandra E. Pike, who executed the foregoing Assignment in my presence, and who acknowledged to me that she executed the same of her own free will for the purposes set forth therein.

Margaret L. Tomczak
Notary Public for
My commission expires:

[SEAL]

MY COMMISSION EXPIRES
MARCH 1, 2003
MARGARET L. TOMCZAK
NOTARY PUBLIC

PAGE 21/34 * RCVD AT 7/29/2004 3:22:09 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/26 * DNIS:2730839 * CSID:228 9446 * DURATION (mm-ss):12-06

WDN/SAS:gle 4239-55414 E-230-00/0 07/26/01

ASSIGNMENT

WHEREAS, I, Lei Yao, of 13723 Valley Oak Circle, Rockville, Maryland, 20850, a citizen of the United States of America, an employee of the Department of Health and Human Services at the time the invention was made, am a co-inventor of USE OF CALRETICULIN AND CALRETICULIN FRAGMENTS TO INHIBIT ENDOTHELIAL CELL GROWTH AND ANGIOGENESIS, AND SUPPRESS TUMOR GROWTH for which the following patent applications have been filed:

☒ PCT Application No. US99/23240, filed October 5, 1999;
☒ U.S. Patent Application No. 09/807,148, filed April 5, 2001; and

I am also a co-inventor of VASOSTATIN AS MARROW PROTECTANT, for which the following patent application has been filed:

☒ U.S. Patent Application No. 09/828,000, filed April 6, 2001; and

All three (3) of these patent applications are collectively referred to herein as "the patent applications" or "applications for Letters Patent"; and

WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the United States of America under Paragraph 1(a) of Executive order 10096, to the entire right, title, and interest herein, both domestic and foreign; and

WHEREAS, the Government of the United States of America is desirous of acquiring all domestic and foreign right, title, and interest in the aforesaid invention described in the aforesaid applications for Letters Patent of the United States of America; and

NOW, THEREFORE, to all whom it may concern, be it known for and in consideration of the premises and other valuable considerations, I the undersigned, have sold, assigned, and transferred and by these presents do sell, assign, and transfer unto The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services (hereinafter THE GOVERNMENT), and their successors, the full and exclusive right, title, and interest in the invention, patent applications and patent rights throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file the invention described in the aforesaid applications for Letters Patent of the United States of America, and all Letters Patents and Registrations which may be granted on the same in the United States of America and all countries throughout the world, and to claim the priority from the applications as provided by United States Law and the Paris Convention, or of any divisional, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

AND, I hereby authorize and request the Commissioner for Patents to issue said Letters Patent to THE GOVERNMENT as an assignee of the entire right, title, and interest in and to the same throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file, for the sole use for the full term or terms for which said Letters Patent and Registrations may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof which may be granted as fully and entirely as the same would have been held by me, had this assignment not been made;

WDN/SAS:gjc 4239-55414 E-230-00/0 07/26/01

AND, I hereby warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied with respect to the aforesaid applications for Letters Patent which will impair, diminish, limit, or abridge the interest herein conveyed at the time of the execution of this instrument by me;

AND, I hereby agree to execute any and all applications for Letters Patent in the United States of America and foreign countries, and to furnish and deliver to the Secretary, Department of Health and Human Services, upon request, all data and documents, and to execute any papers which may be necessary for the prosecution of any application or applications of Letters Patent or for THE GOVERNMENT to exercise its rights granted hereunder, including communicating to THE GOVERNMENT, its representatives or agents, any facts relating to said invention, including evidence for interference purposes, or for other proceedings, whenever requested, to testify in any interference or other proceedings, whenever requested, and to execute and deliver on request all lawful papers required to make any of the foregoing provisions effective, and likewise make these provisions binding upon our heirs, legal representatives, administrators and assigns, and I shall assist THE GOVERNMENT in every way as may be requested in protecting said invention, provided that any expense of extending such assistance shall be paid by THE GOVERNMENT.

I hereby grant the law firm of Klarquist Sparkman Campbell Leigh & Whinston, LLP, the power to insert on this Assignment any further information which may be necessary or desirable in order to comply with all applicable legal requirements, including the rules of the United States Patent and Trademark Office, for submitting and recording this document.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 8-7-2001

Lei Yao

STATE OF Maryland)
) ss.
COUNTY OF Montgomery)

This 7th day of August, 2001, before me personally came the above-named Lei Yao, who executed the foregoing Assignment in my presence, and who acknowledged to me that she executed the same of her own free will for the purposes set forth therein.

Notary Public for Montgomery County
My commission expires:

[SEAL]

MY COMMISSION EXPIRES
MARCH 1, 2003
MARGARET L. TOMCZAK
NOTARY PUBLIC

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
National Institutes of Health

Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard
Rockville, MD 20852

March 17, 2004

TO: NIH Patent Prosecution Contract Law Firms

FROM: Director, Office of Technology Transfer

SUBJECT: **Delegation of Authority for Certain Patent Administration and Prosecution Activities**

Effective this date and acting under the authority set forth in DHHS Secretary Louis W. Sullivan's May 21, 1991 memorandum appearing in the Friday, June 7, 1991 Federal Register Notices at Volume 56, Number 110, pages 26418-26419 (copy attached), I authorize:

Astor, Marlene (Reg. No. 46,005);
Bahar, Mojdeh (Reg. No. 54,798);
Berkley, Dale (Reg. No. 42,319);
Clouse, Thomas (Reg. No. 46,629);
Ferguson, Steven (Reg. No. 38,448);
Finley, Stephen (Reg. No. 36,357);
Haight, James C. (Reg. No. 25,588);
Kim, John Peter (Reg. No. 38,514);
Kindra, Jasbir (Reg. No. 41,115);
Pontzer, Norbert (Reg. No. 40,777);
Rodriguez, Richard U. (Reg. No. 45,980);
Rucker, Susan S. (Reg. No. 35,762);
Sadowski, David R. (Reg. No. 32,808);
Schmickel, David (Reg. No. 40,270);
Shmilovich, Michael A. (Reg. No. 45,634); and,
Spiegel, Jack (Reg. No. 34,477)

to exercise full authority in United States or International patents or patent applications in which the Government of the United States of America, as represented by the Secretary, Department of Health and Human Services, is an applicant or has an ownership interest with respect to the following:

- Signing original, associate, or substitute powers of attorney before the U.S. or International Authorities;
- Signing Request Forms, Demand Forms, and other documents filed in applications before the International Authorities;
- Signing assignee's consent to changes in inventorship;

Page 2: Delegation of Authority for Certain Patent Administration and Prosecution Activities

- Signing papers required from an assignee in connection with an application for Re-issue and/or Re-examination of a patent;
- Signing terminal disclaimers including, but not limited to, terminal disclaimers to obviate obviousness-type double patenting rejections; and
- Signing all documents before the USPTO, either as the U.S. National Office or as a designated Receiving Office under the Patent Cooperation Treaty that can be signed by an assignee in patent matters.

Mark L. Rohrbaugh, Ph.D., J.D.
(Reg. No. 43,035)

Attachment

cc:
OTT Staff